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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/721,809      | 11/25/2003  | Paul E. Salyer       | SMI0100.US          | 6201             |

7590

03/28/2006

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EXAMINER

SWIGER III, JAMES L

ART UNIT

PAPER NUMBER

3733

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/721,809 | <b>Applicant(s)</b><br>SALYER, PAUL |  |
|                              | <b>Examiner</b><br>James L. Swiger   | <b>Art Unit</b><br>3733             |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/25/2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 and 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the independent claims 1 and 9, the applicant claims that each segment has a radius, which is less than the radius of the distal face. This statements is unclear because in Fig. 1, applicant discloses that item 22 represents the distal face. However, in Fig. 3, applicant shows a cutting tooth that is significantly the same as the clearance of the distal face (29). Also, it is unclear from which point the "radius" being used to define the face and tooth originates. If in Fig. 1, the radius originates from the center point at which the reamer head is attached to the shaft, then a "radius which is less than that radius of the distal face" would mean that the teeth point inward. This would logically yield cutting teeth an enablement issue, since they would be cutting nothing in the wrong direction. However, if the teeth are in fact placed outward, then that claim as read would be claiming the airspace, which item 29 in Fig. 1 could possibly show if that is the case.

In another interpretation Fig. 4 shows another view of a cutting tooth with the three sides as claimed by the applicant. With regards to claims 2 and 3, and 10-11, respectively, it is unclear how the radius of the center segment would be larger that that to the corners. This is under the assumption that the rays extend from the center of the

curved bottom of Figure 4, e.g. the radius extends from the center of the curved bottom to point 34 for the center section and to points 32 for the corner sections. The radius to the corners must be larger.

The third interpretation, which may seem the most likely is that the applicant is using the actual size of the punching tool in Fig. 6, to represent the size of the cutting edge that it creates.

Regardless to which interpretation the applicant is referring, the claim does not specifically claim any. Appropriate action is required.

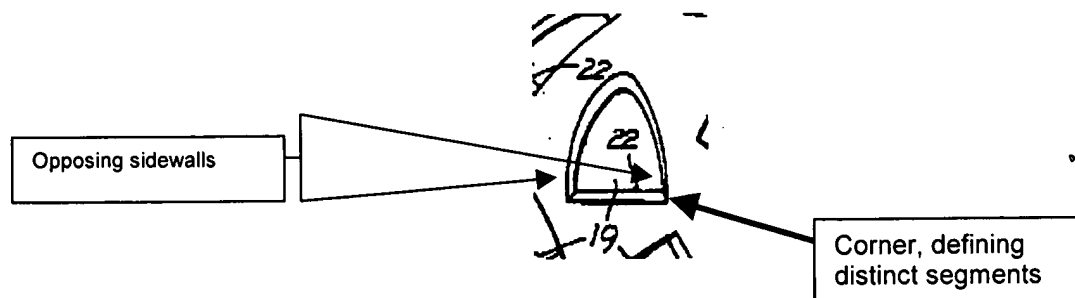
### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-6, 8-11, 13-19, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Braun et al. (US 4,116,200). Braun et al. disclose a rotatable shaft (14), a cutting head with a plurality of teeth (Fig. 2), wherein each tooth comprises two opposing walls (segments 1 and 2) and corners that define three distinct segments, wherein 19 is the center segment. See drawing below.



Braun et al. further disclose a device wherein each segments has a radius which is less than the radius of the distal face (Col. 1, lines 55-68 through Col. 2, lines 1-5). The center segment is capable of having a radius greater than that of the corner segments. Braun et al. further disclose cutting teeth that have a ramped surface that extends between the cutting edge and the distal face and extends between the side walls (see Fig. 2, and 22). The cutting surface of the reamer is also generally hemispherical (see Fig. 3).

With regard to claims 7 and 15, it is noted that the device of Braun et al. '200 appears to be substantially identical to the device claimed, although produced by a different process (punching operation). Therefore the burden is upon the applicant to come forward with evidence establishing an unobvious difference between the two. In re Marosi, 218 USPQ 289 (Fed. Cir. 1983).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braun et al. '200. Braun et al. disclose the claimed invention except for a distal radius between approximately 15 mm and 40 mm, and teeth of radius 14 and 39 mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the plurality of teeth in Braun et al. with the dimensions claimed by

the applicant, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James L. Swiger whose telephone number is 571-272-5557. The examiner can normally be reached on Monday through Friday, 8:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLS



3/10/2006



EDUARDO C. ROBERT  
SUPERVISORY PATENT EXAMINER